ecology and environment, inc.
Global Specialists in the Environment

720 Third Avenue, Suite 1700
Seattle, WA 98104
Tel: (206) 624-9537, Fax: (206) 621-9832

December 28, 2012

Jeffrey Fowlow, On-Scene Coordinator
United States Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101

Re: Site Specific Sampling and Data Management Plans for the Ashue Road Asbestos Site
Contract Number EP-S7-06-02, Technical Direction Document Number 12-10-0001

Dear Mr. Fowlow:

Enclosed please find the Site Specific Sampling and Data Management Plans for the Ashue Road Asbestos Site located in Wapato, Washington. If you have any question regarding this submittal, please call Eric Nuchims at (206) 624-9537 or me at (206) 920-1739.

Sincerely,

ECOLOGY AND ENVIRONMENT, INC.

Steven G. Hall
START-3 Project Leader

cc: Kathy Parker, EPA Region 10 Quality Assurance Coordinator, Seattle, Washington
Eric Nuchims, START-3 Project Manager, E & E, Seattle, Washington

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

OFFICE OF ENVIRONMENTAL CLEANUP
EMERGENCY MANAGEMENT PROGRAM

Site Specific Sampling Plan

Project Name: Ashue Road Asbestos SSSP Site ID: 10ZZ

Author: Eric Nuchims Company: Ecology and Environment, Inc. Date Completed: 27 DEC 2012

This Site Specific Sampling Plan (SSSP) is prepared and used in conjunction with the Quality Assurance Plan (QAP) for the Emergency Management Program for collecting samples during this Removal Program project. The information contained herein is based on the information available at the time of preparation. As better information becomes available, this SSSP will be adjusted.

When inadequate time is available for preparing the SSSP in advance of the sampling event, a Field Sampling Form may be prepared on-site immediately prior to sampling. This full length version of the SSSP is written after the sampling event and the completed Field Sampling Form attached to it.

1. Approvals

Name, Title	Telephone, Email, Address	Signature
Jeff Fowlow **On-Scene Coordinator**	206-553-2751, fowlow.jeffrey@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	
Kathy Parker **EMP Quality Assurance Coordinator**	206-553-0062, parker.kathy@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	

I. Project Management and Organization

2. Personnel and Roles involved in the project:

Name	Telephone, Email, Company, Address	Project Role	Data Recipient
Joe Fowlow	206-553-2751, fowlow.jeffrey@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	On Scene Coordinator	Yes
Eric Nuchims	206-624-9537, enuchims@ene.com E&E 720 Third Ave, Suite 1700, Seattle, WA 98101	Author of SSSP, START Project Manager	Yes
Kathy Parker	206 553 0062, parker.kathy@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	EMP Quality Assurance Coordinator	No
Mark Woodke	206-624-9537, mwoodke@ene.com, E&E 720 Third Ave, Suite 1700 Seattle, WA 98104	START Quality Assurance Reviewer	Yes
Charles LaCerra	856-303-2540 CLaCerra@EMSL.com, EMSL Analytical, Inc. | 200 Route 130 North, Cinnaminson, NJ 08077	Laboratory contact	No

3. Physical Description and Site Contact Information:

Site Name	Ashue Road Asbestos	
Site Location	3960 Ashue Rd, Wapato, WA (Figure 1)	
Property Size	The entire site is approximately 11,500 square meters.	
Site Contact	Andrea Gaytan	**Phone Number:** 509 945 6112
Nearest Residents	On site	**Direction:** N/A
Primary Land Uses Surrounding the Site	Farm and Residential	

4. The proposed schedule of project work follows:

Activity	Estimated Start Date	Estimated Completion Date	Comments
SSSP Review/Approval	October 5, 2012	October 5, 2012	
Mobilize to / Demobilize from Site	October 5, 2012	October 5, 2012	Completion date is estimated.
Sample Collection	October 5, 2012	October 5, 2012	
Laboratory Sample Receipt	October 9, 2012	October 9, 2012	
Laboratory Analysis	October 10, 2012	October 17, 2012	
Data Validation	October 17, 2012	October 28, 2012	

5. Historical and Background Information

Describe briefly what you know about the site that is relevant to sampling and analysis for this investigation.

A local school was abated for asbestos and the concrete and rebar (390 tons) were dumped as fill at the site address. Because of complaints that asbestos may be present in the debris dumped at the site, a representative of the Yakama Nation inspected the site to determine whether asbestos-containing materials (ACM) from the school had been dumped there. While there, the representative observed suspect ACM in the debris that may have come from another source.

During the proposed activities bulk asbestos samples will be collected as well as proposed air samples.

6. Conceptual Site Model

Example: Contaminant: Mercury
Transport Mechanism: vapor moving on air currents
Receptors: people living in the house

The following is the conceptual site model of contamination with respect to this investigation:

The site has been accepting fill material over the years and suspected ACM material has been observed by representatives from the Yakama Nation. The fill area is approximately 150 feet by 100 feet. The ACM could be disturbed and degraded by weather (wind, temperature, and water) and physical contact (human or animal activity on the ground). The disturbance of the ACM can cause asbestos fibers to be released to the air, where they become a risk to human health through inhalation. Additionally, asbestos fibers pose a risk to humans through injection and dermal contact.

7. Decision Statement

Examples: 1) Determine whether surface contamination exceeds the established action level;
2) Determine appropriate disposal options for contaminated materials.

The decision(s) to be made from this investigation is/are to:

Confirm the presence of asbestos and/or ACM.

8. Action Level

State the analyte, concentration, and units for each selected action level. Describe the rationale for choosing each action level and its source (i.e. MTCA, PRG, ATSDR, etc.) Example: The action level for total mercury in soil is 6.7 mg/kg (from Regional Screening Level residential).

For bulk material, the action level is 1% by polarized light microscopy (PLM). If a material contains greater than 1% asbestos by PLM, then it is ACM.

For air sampling, if asbestos fibers are detected, it may indicate the presence of asbestos and/or ACM in the debris.

II. Data Acquisition and Measurement Objectives

9. Site Diagram and Sampling Areas

A Sampling Area is an area within in which a specific action will be performed.
Examples : 1) Each drum on the site is a Sampling Area;
2) Each section of sidewalk in front of the residence is a Sampling Area;
3) Each sampling grid section is a Sampling Area.

There is one decision area (DA) for the site:

1. The fill area on the property.
The DA is indicated on Figure 2.

10. The Decision Rules

These can be written as logical If…, Then.. statements. Describe how the decisions will be made and how to address results falling within the error range of the action level. Examples: 1) In the Old Furnace Sampling Area, the soil in the area around the furnace structure will be excavated until sample analysis with XRF shows no mercury concentrations in surface soil above the lower limit of the error associated with the action level, 18.4 mg/kg. 2) If the concentrations of contaminants in a SA are less than the lower limit of the error associated with the action level, then the area may be characterized as not posing an unacceptable risk to human health or the environment and may be dismissed from additional RP activities. The area may be referred to other Federal, State or Local government agencies.

The following statement(s) describe the decision rules to apply to this investigation:
If bulk samples contain >1% asbestos by PLM and therefore are ACM, it may indicate that ACM was improperly placed at the site as fill material.

If asbestos fibers are detected in air samples, it may indicate the presence of asbestos and/or ACM in the debris.

11. Information Needed for the Decision Rule

What information needs to be collected to make the decisions – this includes non-sampling info as well: action levels, climate history, direction of water flow, etc. Examples: Current and future on-site and off-site land use; wind direction, humidity and ambient temperature; contaminant concentrations in surface soil.

The following inputs to the decision are necessary to interpret the analytical results:

Action levels and asbestos concentrations in air.

12. Sampling and Analysis

For each SA, describe:

1. *sampling pattern (random, targeted, scheme for composite)*
2. *number of samples, how many to be collected from where, and why*
3. *sample type (grab, composite)*
4. *matrix (air, water, soil)*
5. *analytes and analytical methods*
6. *name and locations of off-site laboratories, if applicable.*

Air samples will be targeted in and around the perimeter of the work zone to sample areas representing potential downwind locations. For example, two to three sampling locations for transmission electron microscopy (TEM) analysis will be located to represent potential downwind locations based on site conditions and one upwind location. Air samples will be collected in accordance with NIOSH method 7402 and analyzed for asbestos by transmission electron microscopy (TEM) in accordance with ISO method 10312. Air samples will be grab samples collected on a filter cassette designed for asbestos sampling and analysis; TEM analysis requires a 0.45 micrometer (μm) mixed-cellulose ester filter.

Bulk sampling will be performed at the fill location from materials that are suspected to contain asbestos by bulk PLM method EPA 600/R-93/116. As many as 15 bulk samples may be collected.

Microvaccum (MicroVac) samples may also be collected on surfaces of debris (i.e., concrete) to determine whether asbestos is present. MicroVac samples will be collected on 0.8 mixed-cellulose ester filter cassette and analyzed in accordance with ASTM method 5755. As many as 10 MicroVac samples may be collected.

All samples will be analyzed at EMSL Analytical, Inc. in Cinnaminson, New Jersey.

13. Applicability of Data (place an X in front of the data categories needed, explain with comments)

Do the decisions to be made from the data require that the analytical data be:
1) definitive data, 2) screening data (with definitive confirmation) or 3) screening data (without definitive confirmation)?

*_X_ **A) Definitive data** is analytical data of sufficient quality for final decision-making. To produce definitive data on-site or off-site, the field or lab analysis will have passed full Quality Control (QC) requirements (continuing calibration checks, Method Detection Limit (MDL) study, field duplicate samples, field blank, matrix spikes, lab duplicate samples, and other method-specific QC such as surrogates) AND the analyst will have passed a Precision and Recovery (PAR) study AND the instrument will have a valid Performance Evaluation sample on file. This category of data is suitable for: **1) enforcement purposes, 2) determination of extent of contamination, 3) disposal, 4) RP verification or 5) cleanup confirmation.***
Comments:

*___**B) Screening data with definitive confirmation** is analytical data that may be used **to support preliminary or intermediate decision-making** until confirmed by definitive data. However, even after confirmation, this data is often not as precise as definitive data. To produce this category of data, the analyst will have passed a PAR study to determine analytical error AND 10% of the samples are split and analyzed by a method that produced definitive data with a minimum of three samples above the action level and three samples below it.*
Comments:

*___**C) Screening data** is analytical data which has not been confirmed by definitive data. The QC requirements are limited to an MDL study and continuing calibration checks. This data can be used for making decisions: **1) in emergencies, 2) for health and safety screening, 3) to supplement other analytical data, 4) to determine where to collect samples, 5) for waste profiling, and 6) for preliminary identification of pollutants**. This data is not of sufficient quality for final decision-making.*
Comments:

14. Special Sampling or Analysis Directions

Describe any special directions for the planned sampling and analysis such as additional quality controls or sample preparation issues. Examples: 1) XRF and Lumex for sediment will be calibrated before each day of use and checked with a second source standard. 2) A field blank will be analyzed with each calibration to confirm the concentration of non-detection. 3) A Method Detection Limit determination will be performed prior to the start of analysis so that the lower quantitation limit can be determined. 4) If particle size is too large for accurate analyses, the samples will be ground prior to analysis. If the sample contains too much moisture for accurate analyses, the sample will be decanted and air dried prior to analysis.

Per the sampling method (NIOSH 7402), TEM samples will be collected on 0.45 μm pore-size filters.

Area samples will be collected at a flow rate of approximately 12 to 16 liters per minute (Lpm) for a sampling period of approximately 4 to 6 hours, for the duration of the work activities being monitored.

MicroVac Samples will be collected at a flow rate of approximately 2 to 5 liters per minute (Lpm) on the surface of debris suspected to be ACM or where asbestos fibers may be present.

Blank filter cassettes (up to one per filter cassette type [0.45 and 0.8 μm] per day of sampling) may be submitted as quality control (QC) samples.

15. Method Requirements

[Describe the restrictions to be considered in choosing an analytical method due to the need to meet specific regulations, policies, ARARs, and other analytical needs. Examples: 1) Methods must meet USEPA Drinking Water Program requirements. 2) Methods must achieve lower quantitation limits of less than 1/10 the action levels.3) Methods must be performed exactly as written without modification by the analytical laboratory.]

Not applicable.

16. Sample Collection Information

[Describe any activities that will be performed related to sample collection]

The applicable sample collection Standard Operating Procedures (SOPs) or methods will be followed and include:
Field Activity Logbook SOP
Sample Packaging and Shipping SOP
NIOSH Method 7400
NIOSH Method 7402

17. Optimization of Sampling Plan (Maximizing Data Quality While Minimizing Time and Cost)

[Describe what choices were made to reduce cost of sampling while meeting the needed level of data quality. Example: The XRF will be used in situ whenever possible to achieve accurate results. Reproducibility and accuracy of in situ XRF analyses will be checked by collecting, air drying, analyzing and comparing five in situ samples at the start of sampling. Where interferences are suspected, steps will be taken to eliminate the interferences by mechanisms such as drying, grinding or sieving the samples or analyzing them using the Lumex with soil attachment.]

PLM analyses will be submitted for 1 week turnaround time to provide results with which to determine if asbestos is present in the sampled materials.

Samples for MicroVac and TEM analyses will be submitted for 1 week turnaround to determine if asbestos fibers are present in the air and debris and what type of asbestos.

The format for sample number identification is summarized in Table 1. Sample collection and analysis information is summarized in Table 2.

Table 1
SAMPLE CODING

Project Name: Ashue Road Asbestos Site **Site ID: 10ZZ**

SAMPLE NUMBER [(1)]		
Digits	**Description**	**Code (Example)**
1,2,3,4	Year and Month Code	1210
5,6,7,8	Consecutive Sample Number	2501
SAMPLE NAME / LOCATION ID [(2)] ***(Optional)***		
1,2	Decision Area	BG – Background FA – Fill Area
3,4	Consecutive Sample Number	01 – First sample of DA.
5,6	Matrix Code	AR – Air BK – Bulk MV - MicroVac QC – Quality Control
7,8	Depth (Optional)	01

Notes:
(1) The Sample Number is a unique, 8-digit number assigned to each sample.
(2) The Sample Name or Location ID is an optional identifier that can be used to further describe each sample or sample location.

Table 2. Sampling and Analysis

NOTES (DELETE ME): 1. Fill in one analytical parameter and matrix combination per row.
2. If all the information for each parameter/matrix is the same across all sampling areas, then only enter it on one row and enter "All Decision Areas" in the Sampling Area field. There is no need to enter a separate line for a specific decision area unless there is something different about the sampling information or data quality objectives.
3. Column widths will automatically adjust based on cell contents.

Data Quality	Sampling Area	Matrix	Sampling Pattern	Sample Type	Data Quality	Number of Field Samples	Analyte or Parameter	Method Number	Action Level	Method Quant. Limit	#/type of Sample Containers per Sample	Preservative	Hold Time	Field QC
Lab Analysis	All Decision Areas	Bulk	Targeted	Grab	Definitive	Up to 15	Asbestos	PLM method EPA/600/R-93/116	1%	**1%**	1	NA	NA	
Lab Analysis	All Decision Areas	MicroVac	Targeted	Grab	Definitive	Up to 5	Asbestos	ASTM 5755	n/a	1,000 structures/ cm^2	1	NA	NA	Blank
Lab Analysis	All Decision Areas	Air	Targeted	Grab	Definitive	Up to 5	Asbestos	ISO 10312	0.01 f/cc	0.001 f/cc	1	NA	NA	Blank

Note: For matrix spike and/or duplicate samples, no extra volume is required for air (unless co-located samples are collected), oil, product, or soil samples except soil VOC or NWTPH-Gx samples (triple volume). Triple volume is also required for organic water samples (double volume for inorganic).

Table 3. Common Sample Handling Information

Analysis Type	Sub Analysis	Matrix	Analytical Method	Container Type	Minimum Volume	Preservative	Temperature/ Storage	Hold Time	Source
Metals	Metals Not including Mercury or Hexachrome. Includes TAL, PP, RCRA lists)	Solid	EPA 6000 / 7000 Series	Glass Jar	200 g	n/a	None	6 months	SW-846 ch. 3
		Aqueous	EPA 6000 / 7000 Series	PTFE or HDPE	600 mL	HNO_3 to pH < 2	Not listed	6 months	SW-846 ch. 3
	Mercury	Solid	EPA 7471B	Glass Jar	200 g	n/a	≤ 6° C	28 days	SW-846 ch. 3
		Aqueous	EPA 7470A	PTFE or HDPE	400 mL	HNO_3 to pH < 2	Not listed	28 days	SW-846 ch. 3
	Hexavalent Chromium, (Hexachrome, Cr+6)	Solid	Lab-specific soil extraction modification, EPA 7196A	Glass Jar	100 g	n/a	≤ 6° C	28 days to extraction	SW-846 ch. 3
		Aqueous	EPA 218.6 (Drinking Water)	PTFE or HDPE	400 mL	n/a	≤ 6° C	24 hours	SW-846 ch. 3
	XRF	Solid (in situ; on the ground surface)	6200	none	n/a	none	none	Analyze Immediately	n/a
		Solid (ex situ)	6200	plastic bag	200 g	none	none	6 months	n/a
VOCs	VOCs / BTEX	Solid	EPA 5035 / 8260B	*	*	*	*	2 days to lab / 14 days	SW-846 ch. 4
		Aqueous	EPA 8260B	Amber Vial with Septa Lid	2 x 40 mL	HCl to pH< 2	≤ 6° C (headspace free)	14 days	SW-846 ch. 4
SVOCs	SVOCs / PAHs	Solid	EPA 8270D	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	SW-846 ch. 4
		Aqueous	EPA 8270D	Amber Glass	2 x 1 L	n/a	≤ 6° C	7 days	SW-846 ch. 4
PCBs and Dioxins/Furans	PCBs	Solid	EPA 8082	Glass Jar	8 ounces	n/a	≤ 6° C	none	SW-846 ch. 4
		Aqueous	EPA 8082	Amber Glass	2 x 1 L	n/a	≤ 6° C	none	SW-846 ch. 4
	Dioxins/Furans	Solid	EPA 8280 or 8290	Glass Jar	8 ounces	n/a	≤ 6° C	none	SW-846 ch. 4
		Aqueous	EPA 8280 or 8290	Amber Glass	2 x 1 L	n/a	≤ 6° C	none	SW-846 ch. 4
Pesticides and Herbicides	Chlorinated Pesticides	Solid	EPA 8081	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	SW-846 ch. 4
		Aqueous	EPA 8081	Amber Glass	2 x 1 L	n/a	≤ 6° C	7 days	SW-846 ch. 4
	Chlorinated Herbicides	Solid	EPA 8151	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	SW-846 ch. 4
		Aqueous	EPA 8151	Amber Glass	2 x 1 L	n/a	≤ 6° C	7 days	SW-846 ch. 4
NWTPH	Gasoline-Range Organics	Solid	TPHs/NWTPH-Gx	Amber Glass Jar with Septa Lid	4 ounces	n/a	≤ 6° C (headspace free)	14 days	Method
		Aqueous	TPHs/NWTPH-Gx	Amber Vial with Septa Lid	2 x 40 mL	pH < 2 with HCl	≤ 6° C (headspace free)	7 days unpreserved 14 days preserved	Method
	Diesel-Range Organics	Solid	3510, 3540/3550, 8000	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	Method
		Aqueous	3510, 3540/3550,	Glass Amber	2 x 1 L	pH < 2 with HCl	≤ 6° C	7 days unpreserved 14 days preserved	Method

Analysis Type	Sub Analysis	Matrix	Analytical Method	Container Type	Minimum Volume	Preservative	Temperature/ Storage	Hold Time	Source
			8000						
Geotechnical	Particle Size Analysis	Solid	ASTM D-422	Glass Jar or Plastic Bag	2 x 8 ounce	none	n/a	n/a	Method
Miscellaneous	pH	Solid	EPA 9045	Glass Jar	8 ounces	n/a	n/a	Analyze Immediately	SW-846 ch. 3
		Aqueous	EPA 9040	PTFE	25 mL	n/a	n/a	Analyze Immediately	SW-846 ch. 3
	Total Organic Carbon (TOC)	Solid	SW-846 9060	Glass Jar	100 mL	n/a	$\leq 6^{o}$ C	28 days	SW-846
		Aqueous	EPA 415.1	PTFE or HDPE	200 mL	store in dark HCL or H_2SO_4 to pH <2	$\leq 6^{o}$ C	7 days unpreserved 28 days preserved	Method
	Cyanide	Solid	SW-846 9013	Glass Jar	5 g	n/a	$\leq 6^{o}$ C	14 days	SW-846 ch. 3
		Aqueous	SW-846 9010C	PTFE or HDPE	500 mL	NaOH to pH > 12	$\leq 6^{o}$ C	14 days	SW-846 ch. 3
	Conductivity	Aqueous	EPA 120.1	PTFE or HDPE	100 mL	n/a	n/a	Analyze Immediately	Method
	Hardness	Aqueous	EPA 130.1	PTFE or HDPE	1 x 1 L	HNO3 to pH<2	$\leq 6^{o}$ C	28 days	Method
	Total Suspended Solids	Aqueous	EPA 160.2	PTFE or HDPE	100 mL	n/a	$\leq 6^{o}$ C	7 days	Method
	Total Dissolved Solids	Aqueous	EPA 160.1	PTFE or HDPE	100 mL	n/a	$\leq 6^{o}$ C	7 days	Method
	Nitrate/nitrite	Aqueous	EPA 353.2	PTFE or HDPE	1 x 250 mL	H_2SO_4 to pH <2	$\leq 6^{o}$ C	28 days	Method
	Nitrate	Aqueous	SW-846 9210A	PTFE or HDPE	1,000 mL	n/a	$\leq 6^{o}$ C	28 days	SW-846 ch. 3
	Nitrite	Aqueous	SW-846 9216	PTFE or HDPE	25 mL	n/a	$\leq 6^{o}$ C	48 hours	SW-846 ch. 3, Method
	Fluoride	Aqueous	SW-846 9214	PTFE or HDPE	300 mL	n/a	$\leq 6^{o}$ C	28 days	SW-846 ch. 3
	Chloride	Aqueous	SW-846 9250	PTFE or HDPE	50 mL	n/a	$\leq 6^{o}$ C	28 days	SW-846 ch. 3
	Sulfate	Aqueous	SW-846 9035	PTFE or HDPE	50 mL	n/a	$\leq 6^{o}$ C	28 days	SW-846 ch. 3
	Sulfide	Solid	SW-846 9215	Glass Jar	1 x 4 ounces	Fill sample surface with 2N zinc acetate until moistened.	$\leq 6^{o}$ C (headspace free)	7 days	SW-846 ch. 3
		Aqueous	SW-846 9031	PTFE or HDPE	100 mL	4 drops 2N zinc acetate/100 mL sample; NaOH to pH>9.	$\leq 6^{o}$ C (headspace free)	7 days	SW-846 ch. 3

Key:

* = See individual methods. We typically collect 3xEnCore-type samplers and 1x40 mL VOA vial per sample, keep at $\leq 6^{o}$C with no chemical preservative, and they must be at the lab within 48 hours of collection.

C = Celsius
Cr = chromium
EPA = Environmental Protection Agency
g =grams
H2SO4 = sulfuric acid
HCL = hydrochloric acid
HDPE = high-density polyethylene
Hg = mercury
HNO_3 = nitric acid
L = liter
mL = milliliter
n/a = not applicable
NaOH = sodium hydroxide
PCBs = polychlorinated biphenyls
PTFE = polytetrafluoroethylene
RCRA = Resource Conservation and Recovery Act
SVOCs = semivolatile organic compounds
SW-846 = EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods
TAL = Target Analyte List
TPH = total petroleum hydrocarbons
VOA = Volatile Organic Analysis
VOCs = Volatile Organic Compounds

III. Assessment and Response

A Sample Plan Alteration Form (SPAF) will be used to describe project discrepancies (if any) that occur between planned project activities listed in the final SSSP and actual project work. The completed SPAF will be approved by the OSC and QAC and appended to the original SSSP.

A Field Sampling Form (FSF) may be used to capture the sampling and analysis scheme for emergency responses in the field and then the FSF pages can be inserted into the appropriate areas of the final SSSP.

Corrective actions will be assessed by the sampling team and others involved in the sampling and a corrective action report describing the problem, solution, and recommendations will be forwarded to the OSC and the EMP QAC.

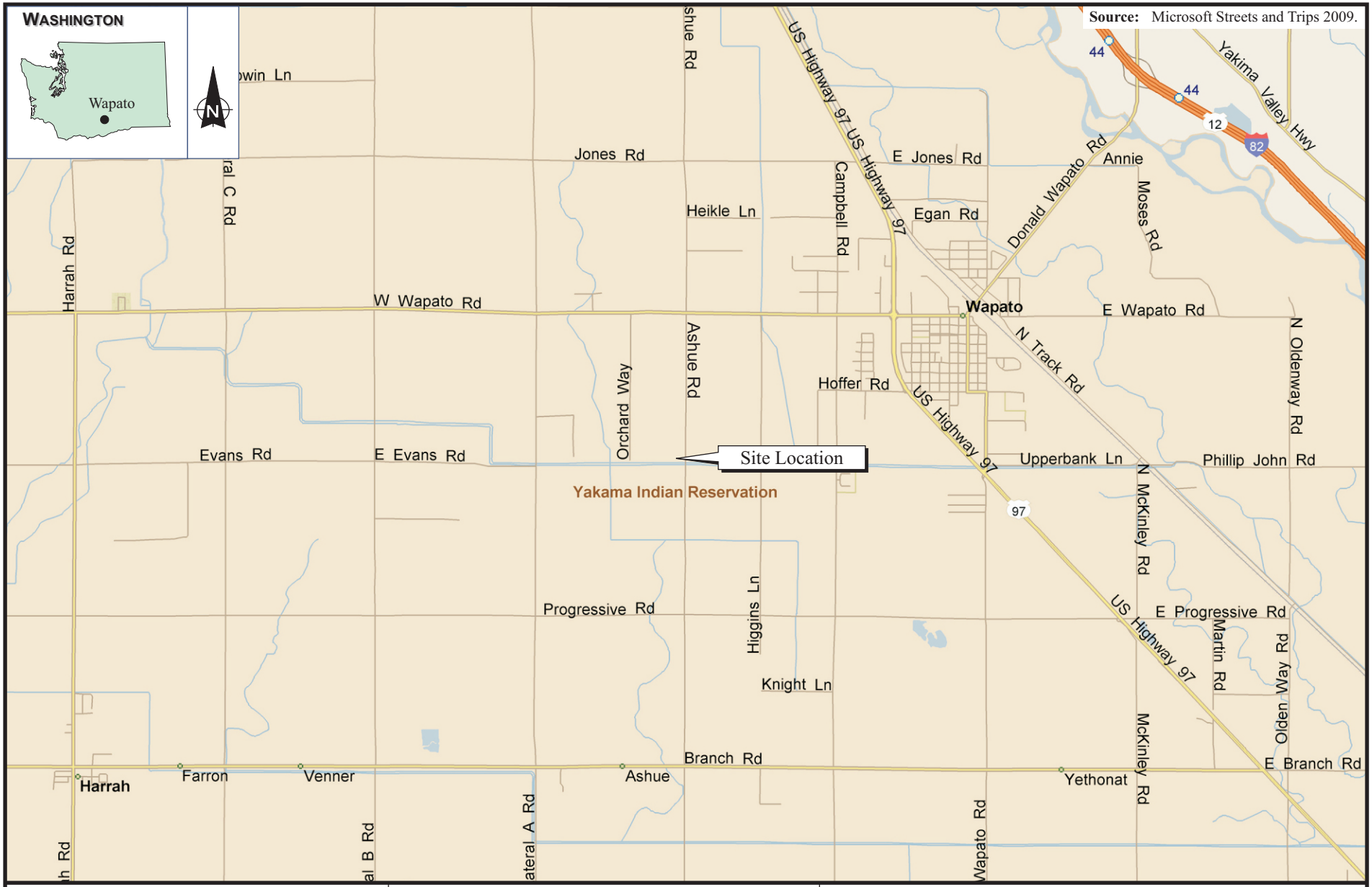
IV. Data Validation and Usability

The sample collection data will be entered into Scribe and Scribe will be used to print lab Chains of Custody. Results of field and lab analyses will be entered into Scribe as they are received and uploaded to Scibe.net when the sampling and analysis has been completed.

18. Data Validation or Verification will be performed by:

EMP's general recommendation on validation is that a minimum of CLP-equivalent stage IIA verification and validation be performed for every SSSP involving laboratory analyses. However, stage IIB is preferred if the lab can provide it. Dioxins should be validated at CLP-equivalent stage 4.

	Data Verification and Validation Stages						
Performed by:	I	IIA	IIB	III	IV	Verification	Other:
E and E QA Reviewer	100%						
TechLaw QA Reviewer							
EPA Region 10 QA Office							
MEL staff							
Other:							



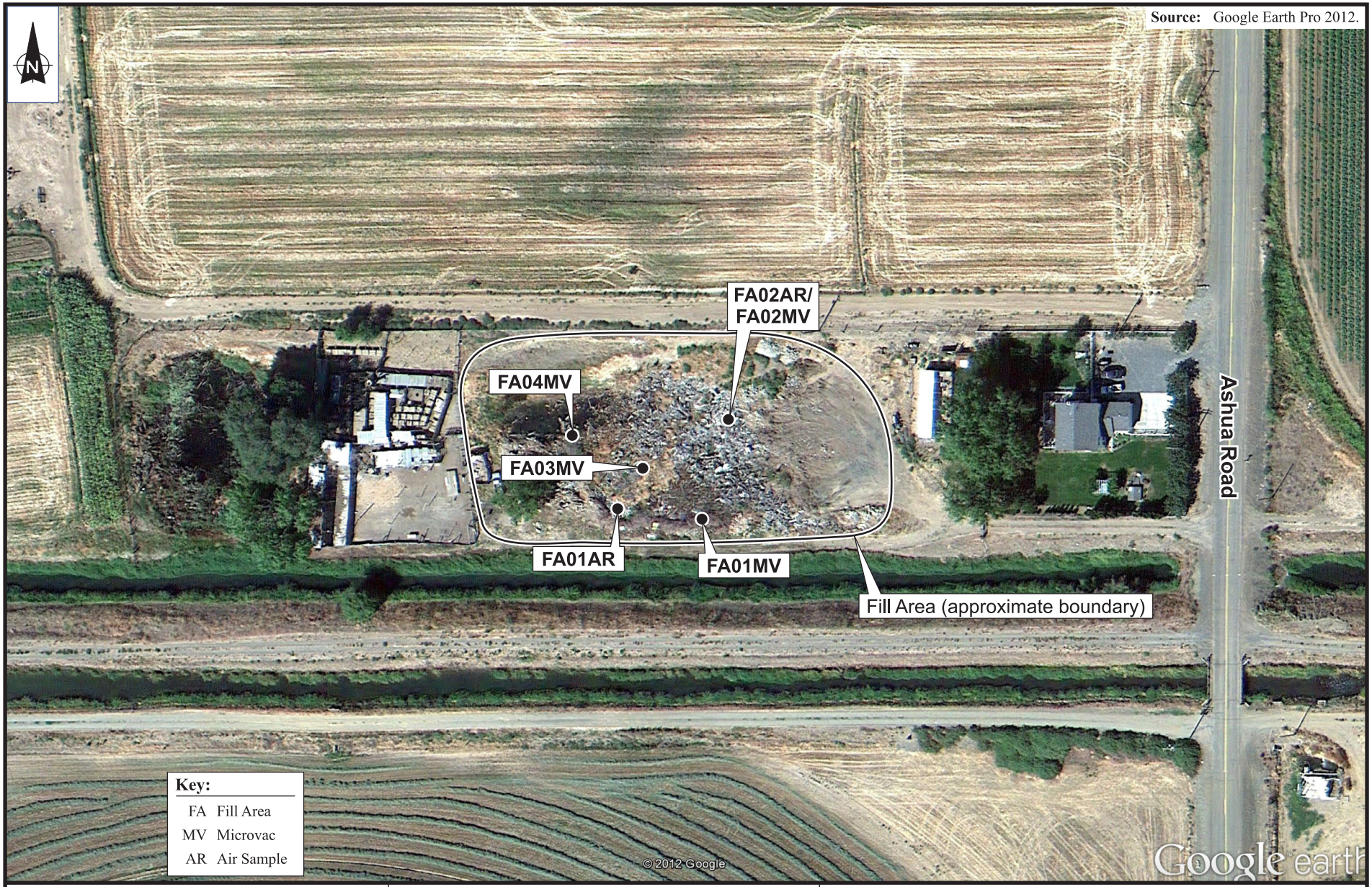
ecology and environment, inc.
Global Specialists in the Environment
Seattle, Washington

ASHUE ROAD ASBESTOS
Wapato, Washington

Figure 1
SITE VICINITY MAP

0 .5 1
Approximate Scale in Miles

Date:	Drawn by:	
10/5/12	AES	10:START-3\12100001\fig 1



ecology and environment, inc.
Global Specialists in the Environment
Seattle, Washington

ASHUE ROAD ASBESTOS
Wapato, Washington

Figure 2
SITE LAYOUT

0 50 100
Approximate Scale in Feet

Date:	Drawn by:	
10/30/12	AES	10:START-3\12100001\fig 2

	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 1200 Sixth Avenue, Suite 900 Seattle, Washington 98101-3140 OFFICE OF ENVIRONMENTAL CLEANUP EMERGENCY RESPONSE UNIT	**Site-Specific Data Management Plan**			
		Project Name:	Ashue Asbestos	**Project Code:**	10ZZ
		Author:	Brad Martin	**Company:**	Ecology & Environment, Inc.
		Date Initiated:	October 5, 2012	**Last Updated:**	October 5, 2012

This data management plan (DMP) is intended to provide guidance for data collection by field personnel and subsequent data management activities. The data collection and management practices presented in this plan are designed to ensure data integrity and consistency for all data collection personnel and from operational period to the next. Listed in this DMP are data elements, data collection equipment, and data management processes, and end-use products appropriate for supporting the EPA On-Scene Coordinator (OSC). Electronic tools and files used during data management at the site may include a GPS with a data dictionary to gather site specific data, EDD files for laboratory results, an XRF database used to validate the data, field monitoring equipment (such as air monitoring equipment), a SCRIBE database to manage all field data and analytical results, and ArcGIS to manage geospatial data. Manual data entry or Excel spreadsheets will be used to incorporate field notes and historic data when electronic data is not available.

Data Processing

The following table outlines the specific requirements for various data types being collected during the project.

Data Source	Required Information	Processing Instructions	Processing Frequency	Processing Responsibility	Storage Location	Final Output [format]
Site Documents	Site files, SSSP, SSDMP, logbook	Store hard copies and electronic copies	Beginning of project, and as needed	Project Manager	Digital: [Computer] Hard Copy: Site Doc Box	Site file deliverable
Site Information	Site name, site number	Upload to Scribe.net	Daily or as information is added	Project Manager	Site Laptop	Scribe Database [.mdb]
Scribe	Scribe .mdb	Publish to scribe.net	Daily or as needed	Project Manager	[SiteName]\02 Execution\SCRIBE	scribe.net
Sample Information	Sample No, Date, Time, Sampler, Location	Record into Scribe	As Samples are added	Project Manager	Scribe	Chain-of-Custody forms, labels, tabular reports, and/or maps
Camera	Date, time, direction, photographer, description	Information will be collected on field forms or in the logbook and transcribed to a word document	Conclusion of project	Project Manager	[Site Name]\02 Execution\Photos	Photos [.jpg], Photographic log [.xls]

Data Source	Required Information	Processing Instructions	Processing Frequency	Processing Responsibility	Storage Location	Final Output [format]
GPS	Location, latitude, longitude	Data will be processed according to the GPS Data Processing SOP and uploaded into Scribe	Conclusion of project	Project Manager and GIS Analyst	[Site Name]\02 Execution\GIS	Tabular reports [.xls] and/or maps [.pdf]

All electronic files will be written to a CD-ROM or DVD and provided to the Task Monitor. Hard copy files will be assembled and provided to the Task Monitor. Hard copy files will include, but are not limited to logbooks and field forms.

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